

REMARKS

This is in response to the Non-Final Office Action mailed on May 4, 2007. In the Action, claims 1-24 and all of the pending claims were rejected. By this response, claim 17 has been amended. In view of the claim amendment and remarks provided below, the Applicants respectfully submit that the pending claims are in condition for Allowance and a Notice to that effect is thereby requested.

Claim 17 stands rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. Claim 17 has been amended to address this alleged deficiency. Withdrawal of the rejection is respectfully requested.

Claims 1, 6, 11-12, 16, 18 and 23-24 stand rejected as allegedly being anticipated under 35 U.S.C. § 102(b) by U.S. Pat. 4,843,389 of Lisle et al. (hereinafter "Lisle"). Of the pending claims, claims 1, 6, 11, and 18 are independent claims and all are allegedly anticipated by Lisle. Applicant traverses the rejection.

Each of the independent claims is directed toward various aspects of a linguistic sorting system that employs symbol table for storing sort weights for a plurality of linguistic symbols used in a plurality of languages that are supported by a computer system. Each of the independent claims also recites a "compression type" and "compression" related to linguistic symbols. Applicants respectfully submit that Lisle neither teaches nor suggests a compression type or compression as defined in the specification and recited in each of the independent claims.

As an illustrative example, claim 1 is directed toward computer-executable instructions for performing steps for building a symbol table for storing sort weights for a plurality of linguistic symbols used in a plurality of languages supported by a computer system. Building the symbol table includes constructing the symbol table to contain a list of code points each uniquely identifying one of the symbols, and a sort weight for the symbol identified by said each code point. Furthermore, a plurality of compression tables are provided. Each compression table pertains to one of the supported languages and has a compression type and contains compressions of symbols of that compression type. For each code point in the symbol table, the compression tables are sorted to identify a highest compression type for compressions beginning with the symbol identified by said each code point. A tag is then stored in the symbol table for each code point to indicate said highest compression type for each code point.

An Applicant is entitled to be his or her own lexicographer and my "define specific terms used to describe" an invention (In re Paulsen, 31 USPQ 2d 1671, 1674 (Fed. Cir. 1994)). Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim. (Toro Co. v. White Consolidated Industries Inc., 53 USPQ2d 1065, 1069 (Fed. Cir. 1999)). As discussed above, claim 1 recites that a plurality of compression tables are provided, where "each compression table pertain[s] to one of the [plurality of] supported languages and [has] a compression type and contain[s] compressions of symbols of that compression type." (Emphasis added.) The Applicants clearly define what is (and conversely what is not) meant by a compression and compression types in the context of the pending application.

The operation of collation is further complicated by the existence in many languages of special groupings of linguistic symbols that have to be treated as "sort elements" for purpose of linguistically correct sorting. For instance, in Hungarian, "DZS" is a unique combination that is sorted before "E" and after "DZ." Such a special grouping of symbols as a sorting element is conventionally referred to as "compressions" (not to be confused with the usage of "compression" in the context of data size reduction).

(Specification, paragraph [0004].) (Emphasis added.) The Applicants continue:

The term "compression" as used herein means a special grouping of linguistic symbols that is to be treated as one unit for linguistic sorting purposes. In other words, a "compression" is a "sort element." As an example, the combination of "dzs" in Hungarian is a compression or sort element that is expected by a Hungarian speaker to be sorted between the letters "d" and "e." A compression may consist of two or more symbols, and the "compression type" (or synonymously "compression level") of a given compression means the number of symbols in a given compression. For instance, the compression type of the compression "dzs" is 3-to-1.

(Application, paragraph [0017].) Thus, the Applicants have provided a specific meaning for what compression and compression type mean in the context of the claims. Compressions in this context are two or more linguistic symbols that are to be treated as one unit for linguistic sorting purposes. Compression types are the number of symbols in a given compression. A compression type of 3-to-1 means that three linguistic symbols are to be treated as one unit for sorting purposes. It expressly does not mean anything related to a compression ratio of data.

The Office Action asserts on page 3 that Lisle "discloses the use of a compression ratio (representative of the fractional size of the original to compressed data)." Applicants respectfully submit that Lisle, instead of being directed to

compressions related to linguistic symbols to be treated as a single unit for sorting purposes, is specifically directed toward data size reduction and therefore is directed toward subject matter from which the current application expressly distinguishes itself. The Office Action asserts on page 3 that Lisle "discloses the use of a compression ratio (representative of the fractional size of the original to compressed data)." In other words, the use of the term "compression" in Lisle refers to the context of data size reduction and not to "a special grouping of linguistic symbols that is to be treated as one unit for linguistic sorting purposes". Applicants could find no evidence of any teaching related to the type of compression recited in each of the independent claims. Furthermore, Applicants could find no indication that Lisle builds a single symbol table capable of supporting multiple languages.

Any reference to compression in the Lisle reference appears to be targeted toward data reduction and not to the recognition of linguistic units. Thus, the Applicants submit that the Lisle reference fails to teach or suggest the features recited in any of the independent claims. Lisle fails to teach or suggest "providing the plurality of compression tables or sorting the compression tables to identify a highest compression type for compressions beginning with the symbol identified by said each code point" as is recited in claim 1. Lisle thus also fails to teach or suggest "providing a plurality of compression tables, each compression table pertaining to one of the supported languages and having a compression type and containing compressions of symbols of that compression type" as is recited in claim 6. Further, Lisle fails to teach or suggest "referencing a symbol table to obtain a highest compression type for compressions beginning with said first symbol, the symbol table having a list of code points each uniquely identifying a

symbol and a sort weight for the symbol identified by said each code point" as is recited in claim 11. Further still, Lisle fails to teach or suggest "for a first symbol in a combination of symbols in [an] input string, obtaining a highest compression type for compressions beginning with said first symbol" as is recited in claim 18. For at least these reasons, Applicants respectfully submit that each of the independent claims 1, 6, 11 and 18 are not anticipated and are allowable over Lisle.

Claims 12, 16, and 23-24 each depend from one of the independent claims listed above and are believed to be patentable for at least the reason of their dependence upon allowable claims. Applicants therefore respectfully request withdrawal of this rejection.

Claims 2, 5, 7, 10, 15, 17, 19, and 22 stand rejected under U.S.C. § 103(a) as being unpatentable over Lisle in view of U.S. Pat. 7,130,470 of Ho. Each of the claims in question is dependent upon an independent claim, which as discussed above is believed to be allowable. Specifically, claims 2 and 5 depend from independent claim 1, claims 7 and 10 depend from claim 6, claims 15 and 17 depend from claim 11 and claims 19 and 22 depend from claim 18. Based at least on their dependency on allowable claims, Applicants assert that each of these claims is directed toward allowable subject matter. Withdrawal of the rejection is respectfully requested.

Claims 3-4, 8-9, 13-14, and 20-21 stand rejected under U.S.C. § 103(a) as being unpatentable over Lisle in view of Ho in further in view of U.S. Pat. 5,873,111 of Edberg. Each of the claims in question is dependent upon an independent claim, which as discussed above, is believed to be allowable. Specifically, claims 3-4 depend from independent claim 1, claims 8-9 depend from claim 6, and claims 20-21 depend from claim 18. Based at

least on their dependency on allowable claims, Applicants assert that each of these claims is directed toward allowable subject matter. Withdrawal of the rejection is respectfully requested.

In summary, Applicants believe that in view of the claim amendments and remarks provided herein, all of the pending claims are in condition for Allowance. A Notice to that effect is thereby respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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